

# Oerlikon 81 mm Rocket



Type SNORA

# Oerlikon 81 mm Rocket Type SNORA

The Oerlikon 81 mm SNORA rocket has been developed in co-operation with the SNIA-VISCOSA at Rome/Italy. Both firms have long been successfully active in rocket sector. The merging of technical know-how has led to the modern and effective rocket system SNORA, which can be used at both subsonic and supersonic speeds in air-to-ground, and in ground-to-ground engagements.

The design is such that this rocket is suitable for engagements from many different weapon carriers such as fighter aircraft, helicopters, tracked and wheeled vehicles, ships, etc.

This rocket is fitted with the necessary safety devices for storing, transportation, handling and firing. Correct functioning is ensured over the temperature range of  $-45^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$ .



## Main Features

This rocket is one of the highest performance 8 cm calibre weapon. It is an unguided solid fuel rocket with folding fins. As propulsive it has a pure internal burning propellant.

Its advantages are as follows:

- Applicable for air-to-ground and ground-to-ground engagements
- Used with pods for supersonic and subsonic aircraft
- Engagement of area and point targets
- High target effectiveness
- Shells for every purpose
- Long range
- Simple, robust design
- Used with simple tube launchers
- Extremely reliable



# Shells

The many different types of shells give the SNORA rocket a wide range of use.

## Fragmentation Explosive Shells

The fragmentation explosive shells have a mechanical impact fuze. The shells have different masses depending on type as indicated below:

### SSK 029 1

Mass ready to fire:  
7.0 kg filled with 1.66 kg explosive

### SSK 031 2

Mass ready to fire:  
4.5 kg filled with 1.03 kg explosive

### SSK 032 3

Mass ready to fire:  
11 kg filled with 2.78 kg explosive.  
They can be used against soft and lightly armoured area and point targets and have a good fragmentation effect.

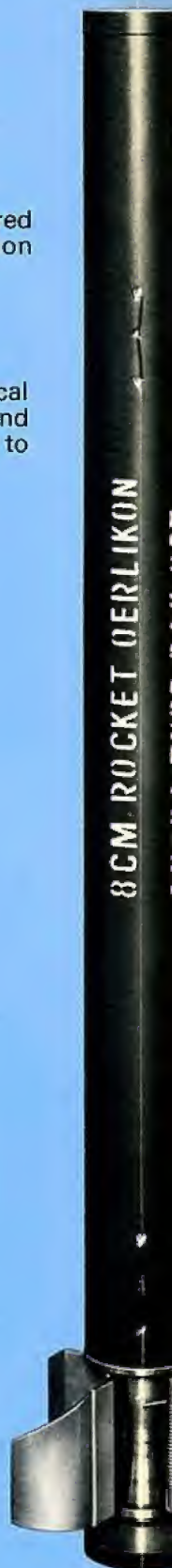
### Hollow Charge Warhead 4

Type PHK 030  
This hollow charge warhead has an electromechanical base fuze. It is filled with ca. 1.0 kg explosive and weighs 4.5 kg ready to fire. This warhead is used to engage armoured point targets.

# SNORA

## Practice Shell

Practice shells can be used for all practice purposes either with or without marker charge.





# Application

For ground-to-ground applications the rocket is fired from multi-tube rocket launchers. Pods are used for sub- and supersonic air-to-ground engagements.



81 mm multi-tube rocket launcher on an armoured personnel carrier



81 mm multi-tube rocket launcher on a helicopter



Pod for fighter aircraft





# Technical Data

Calibre of rocket	81 mm
Length depending on type of shell	1417 to 1783 mm
Initial weight depending on type of shell	13.2 to 19.7 kg
Range ground-ground	ca. 10 km
Ignition voltage	24 to 28 V
Ignition current	1.5 to 1.7 A
Detonator resistance	0.7 to 1.5 $\Omega$

## Propellant Characteristics

Weight of propulsive element	8.7 kg
Mean thrust at +18 °C	1342 kg
Total impulse at +18 °C	940 kg s
Action time at +18 °C	0.7 s

## Ballistics of the Rocket

Max. speed from ground at +18 °C	520 to 820 m/s
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